Challenges of 'One Health' concept

Author: Prashant Chaudhary

IAAS, Paklihawa Campus

'One Health' basically is the joint effort of various accepted disciplines to reach a point in which there is human, animal and environmental health equilibrium. The concept of one health can be enforced by humans and humans only. The concept is simple; we should take care of those diseases prevailing among human and animal population with a balance in the environment. This balance which we are talking about is really dynamic and delicate. A slight change in certain parameters can result into devastation of the balance.

We have studied about the emergence of diseases with the increase in population. Before, the disease causing organisms and entities were lesser in number. Then, population increased (among humans) and this brought out many more diseases. This was because of the biotic and a biotic interaction. Humans needed space to live, clothes to wear and food to eat as their basic needs. The biggest resource to humans for all their needs was the forest. Humans raped the forests to quench their thirst. Decrease in the forest area harmed the needs of animals.

With the passage of time, only food, home and clothes were not enough for humans. They started exploiting other resources of nature and industrialization began. Big mines, power plants, vehicles etc. were built. The by-products of these development activities harmed every animal directly or indirectly, even the humans. With decreasing space, animals had to trespass the human territory. And it turned out that some animals were dangerous vectors to diseases never seen before such as HIV, T.B etc. The first solution that humans figured out was clearing the vector population. It was a leap towards human safety but this degraded the animal life on the infected areas. Taking care of this imbalance is called one health concept.

While we solve the disease problems, we need to think about the safety of the animals too. When we want to free the crops of pests then we need to think of such ideas which don't affect the environment or other non-targeted species. Swine flu (H1N1) and bird flu (H5N1) are some examples that I would like to use to clarify my point. These diseases infect both animals and humans. When a swine is infected, we should isolate those animals. That is the best idea to take

care of it. Killing the infected animals can be a solution but we can't solve human infection with the same idea. In one health approach, we need to keep in mind about human, animal and environment health. To do this, multiple disciplines need to be integrated to take care of it. Pathology and pharmacy need to go parallel. Physical and chemical science need to make devices necessary to solve the health crisis and maintain the balance among humans, animals and the delicate environment.

Various NGOs, INGOs and international group of countries have been taking initiatives to meet the purpose and need of one health concept. Developed countries have already realized the need and importance of it but the developing and under developing countries are yet to get their eyes on it. Acts and laws in the favor of animals have also been made by the respective legislative assembly. Many human and animal rights associations have been working to assure the health and well-being of the humans and animals. These initiatives have made the state of one health somewhat prevailing in the concerned areas but need extra effort from the government sectors for a better implementation. Youths like us who have been perusing their career in the field of Agriculture, Veterinary science, forestry, fisheries, pharmacy, clinical medicine etc. are the ones who can practically give life to this concept. The world needs to understand this and do the homework on it. UNO, EU, SAARC and other associations have a major role in this.

Complete implementation of the one health concept is day dreaming. But with the joint effort of youths and the respective organizations, a better state of the balance among human, animal and environment health can be set.